A SYSTEM FOR CARRYING A PORTABLE ITEM OF EQUIPMENT

The invention relates to a system for carrying a portable item of equipment, and it relates more particularly to a system for carrying a portable item of equipment that can be attached either around the wrist of a user or around the neck of a user.

## BACKGROUND OF THE INVENTION

Document FR-A-2 661 662 describes a portable item of equipment having a housing provided with two parallel slideways formed on opposite edges of the housing. A fastening system is fixed in removable manner to the housing. The fastening system is either a wrist strap that fixes around the wrist of the user, or a neck strap that is placed around the neck of the user.

Document GB-A-2 266 452 describes a carrying system for carrying a portable item of equipment. That carrying system has a wrist strap and a belt clip formed in integral manner. A chain detachably connects the carrying system to the portable item of equipment.

Document CH-A-665 327 G describes a device for attaching a wrist strap to a watch case. A tie is fixed to the case via one of its ends to form a loop around a wrist. The case has a pillar around which the tie is wound to set the size of the loop formed by the tie.

Those devices suffer from drawbacks. They do not make it possible to obtain different sizes of loop with the same cord for the purpose of adapting the fixing so as to suit needs. In particular, those systems do not make it possible to use the same system to attach a portable item of equipment around a user's neck or wrist depending on what the user wants. In addition, those devices are complicated and are not easy to adjust.

## OBJECTS AND SUMMARY OF THE INVENTION

There is therefore a need for a system for carrying a portable item of equipment that makes it possible, for example, to attach a portable item of equipment selectively either to the neck or to the wrist of a user.

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It is also desirable for a carrying system of this type to be compact.

The invention thus provides a carrying system for carrying a portable item of equipment, said system comprising a cord forming a loop, and a member on the loop, retaining two strands of the cord to form a closed loop defining an aperture. The member is provided with first retaining means suitable for retaining a portion of the closed loop, so as to form a closed double loop, thereby reducing the aperture.

In a variant, the carrying system further comprises second retaining means, the cord co-operating with the second retaining means to form the closed loop.

In another variant, at least one strand of the cord is mounted to slide relative to the second retaining means.

In yet another variant, the member has locking means for preventing said strand of the cord from sliding.

In yet another variant, the member is provided with a passageway of cross-section suitable for preventing said strand of the cord from sliding when a force less than a predetermined force is applied to the cord.

It is also possible to make provision for the crosssection of the passageway to be smaller than the crosssection of said strand of the cord.

In a variant, the member has a fastening suitable for retaining a portable item of equipment.

In yet another variant, the fastening comprises a second cord portion opposite from the loop, and a part fixed to the second cord portion to form a fastening loop for fastening to a portable item of equipment.

In yet another variant, the first retaining means comprise a catch provided with a groove of width less than the cross-sectional width of the cord.

In yet another variant, the cord has a length greater than about 40 centimeters (cm).

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## BRIEF DESCRIPTION OF THE DRAWINGS

Other characteristics and advantages of the invention will appear on reading the following description of embodiments of the invention given by way of example and with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a carrying system in an embodiment of the invention, forming a loop that is placed around the neck;

Figure 2 is a perspective view of the carrying system of Figure 1, forming a double loop that is placed around the wrist;

Figure 3 is a perspective view of a carrying system in another embodiment of the invention;

Figure 4 is a section view of a carrying system body making it possible to set the adjustment of the carrying system; and

Figure 5 is a perspective view of a carrying system in yet another embodiment of the invention.

## MORE DETAILED DESCRIPTION

The present invention proposes a carrying system for carrying a portable item of equipment. The carrying system comprises a cord forming a loop and a member placed on the loop and having first retaining means for retaining a portion of the loop. The system is in the form of a double loop when a portion of the cord in the loop is retained by the first retaining means. It is thus possible to reduce the aperture of the loop so that it is made about four times smaller. The loop of the carrying system can thus be placed selectively around the neck or around the wrist of a user.

Figure 1 is a perspective view of a carrying system in an embodiment of the invention. The carrying system 1 has a member formed of a body 2 having first retaining means 3 for retaining the loop. Second retaining means 12, 13, 14, and 15 for retaining the loop are provided in the body. A cord 4 forms a single loop by default. A

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fastening 5 makes it possible to attach a portable item of equipment 6 to the body 2.

In Figure 1, the cord 4 forms an open single loop. The loop is closed by means of the member 2.

The body 2 retains the cord 4. In the example shown in the figure, the body 2 retains two strands of the loop. In this embodiment, the body makes it possible to close the loop and to retain said loop. In this configuration, the loop has an aperture that is large, so that, for example, it can be placed around the neck of a user.

Provision may also be made for the cord to form a closed first loop, e.g. by means of a knot tied between two strands of the cord, and a second loop, inside the first loop and closed by means of the member 2, the second loop defining the aperture.

As shown in Figure 2, in order to adapt the size of the aperture of the loop, in particular to be able to place the loop around the wrist of a user, and to ensure that the carrying system is retained properly by the user, the first retaining means for retaining the loop comprise a catch 3. This catch makes it possible to form a closed double loop between the cord 4 and the body 2. The cord 4 is placed in the catch 3 which thus retains a portion of the cord. The loop is thus doubled, and it then has an aperture that is substantially four times smaller.

In addition, the loop is folded over in this configuration. The size of the aperture of the double loop is thus made smaller without the loop projecting from the wrist of the user.

The embodiment shown in Figures 1 and 2 has a catch in the form of a hook that projects relative to the body. The hook faces away from the loop, towards the other side of the body. Thus, when the user is wearing the double loop on the wrist, the user exerts a tension force on the cord 4. This force holds the cord 4 in position as fully

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inserted in the hook. The loop is thus held in a position in which it forms a double loop.

The embodiment shown in Figure 3 shows a body 2 provided with a hook 3 whose top surface 7 is in alignment with the top surface 8 of the body. In this embodiment, the hook 3 holds the cord better. In addition, the hook 3 does not project relative to the top surface 8 of the body. The risk of a garment worn by the user being damaged by the hook snagging on it is thus reduced.

The embodiments shown in Figures 1 to 3 show catches in the form of hooks, but the catches may be formed differently, e.g. by providing a groove in the body, in which groove the cord is slidably received. It is also possible to provide a compressible cord whose crosssection is larger than the width of a groove in the body. the cord is thus deformed when it is inserted into the groove, thereby generating a force that holds the cord in the groove.

To form a loop that is long enough to fit selectively around the neck or around the wrist of a user, it is preferable for the cord 4 to have a length greater than the average neck size of an adult person. The cord preferably has a length longer than about 40 cm. The cord 4 advantageously has a length greater than 60 cm. It is thus possible to form a loop that is long enough to be placed around the neck of or around the wrist of an average adult user. It is also possible to use an elastic cord to enable the loop to be enlarged as it is being placed around the neck or around the wrist of the user. It is also desirable to use a cord of length shorter than 90 cm to obtain a carrying system that is of small size.

It is also possible to make provision for additional adjustment of the size of the loop, e.g. by using a cord that slides relative to the body, as shown in Figures 1 to 3. For example, the cord may project relative to the

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body on the side opposite from the loop. The user can then pull on the cord to cause it to slide relative to the body, thereby reducing the size of the loop. The size of the loop are thus adjusted with more precision.

It is also possible to form a body on which one end of a cord is stationary, while the other is slidably mounted. It is thus possible adjust the loop while simplifying the body.

It is possible to set the size of the loop by preventing the cord from sliding by deforming it. Figure 4 is a section view of an example of a body that makes it possible to hold the cord stationary by deforming it. The dashed lines represent the cord 4. The body has two cord inlets 12 and 13, and one cord outlet 16. inlets 12 and 13 are connected via respective ducts 14 and 15 to the outlet 16. The ducts are of cross-section smaller than the cross-section of the cord. A force that deforms the cord in the ducts 14 and 15 thus holds the cord in the body. The adjustment of the size of the through cross-section of the loop is thus locked. two strands of the cord project relative to the outlet, and, as described above, make it possible to adjust the aperture of the loop. The user can exert sufficient force on the cord to cause it to slide relative to the body.

It is also possible to use other means for preventing the sliding, such as a pusher urged by a spring, preventing the cord from moving in the body when the pusher is not urged by the user.

The fastening 5 makes it possible to attach a portable item of equipment 6 to the body 2. The fastening may comprise a ring 9 placed on the body and a chain 10 secured to the ring. For example, the chain may be secured to a ring 11 provided on the portable item of equipment 6.

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In a variant of the invention, the portable item of equipment is fixed to the portion of cord projecting relative to the outlet 16 of the body.

The carrying system of the invention may serve to carry a portable item of equipment such as a mobile telephone, an electronic diary or an organizer.

In the embodiment shown in Figure 5, the carrying system has a cord mounted to slide relative to the The two strands of the cord project relative to the side opposite from the loop that is organized to go around the neck of the user. A part 17 is mounted in stationary manner on the two strands of the cord. fastening loop 18 for fastening to an item of portable equipment is secured to the part 17. For example, the fastening loop 18 may be slid in a corresponding fastening on a portable item of equipment, such as a clasp. The fastening loop thus makes it possible to maintain an item of portable equipment attached to the carrying system. For example, the part 17 makes it possible to define a fastening loop 18 of small size to limit the movement of the portable item of equipment over said fastening loop.

The present embodiments and examples should be considered as given by way of non-restricting illustration, and the invention is not limited to the details given herein. Rather, it may be modified while remaining within the scope of the accompanying claims. For example, it is possible, also while remaining within the ambit of the invention, to replace the cord with a flexible strip. It is also possible to use first retaining means or a catch and a cord that make it possible to form at least a triple loop.